KwikLift™
Cable Hoist

Operator's Manual

WARNING

Failure to follow all instructions and safety precautions in this manual, in the Service Manual, in other manufacturer's manuals and on the safety decals attached to the product could result in serious injury or death to operators or bystanders and/or damage to property.

DO NOT operate this vehicle before you READ and UNDERSTAND this Operator's Manual, the Parts and Service Manual for this unit, other applicable manufacturer's manuals and the safety decals on the product.

Each operator of this unit must read and understand all directions in this manual before they first operate this vehicle.

Keep this manual in the cab for new operators and to remind all operators about safe use.

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TP2KL-10002-1011

Environmental Solutions Group
A DOVER COMPANY

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Read This Manual!

EVERY PERSON who will **OPERATE, MAINTAIN, REPAIR OR OTHERWISE WORK** with the Heil KwikLift™ Cable Hoist **MUST READ AND UNDERSTAND** this entire Operator's Manual before starting the engine or activating any switches or controls. **MAKE SURE** to read the Service Manual for the unit **BEFORE** you do any maintenance or repair procedures.

ALL USERS of this equipment must be trained professionals who understand how the machine operates and know how to avoid the risks associated with driving the vehicle and with picking up, compacting, and dumping refuse in an ever-changing traffic environment.

If you do not understand an operation or instruction, seek additional help or instruction from a qualified source **BEFORE** you operate the unit.

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Introduction to the KwikLift™

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EMPLOYER RESPONSIBILITIES

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Upon purchasing the Heil Environmental KwikLift™ the owner has the following responsibilities:

- To comply with all occupational safety and health standards and all rules and regulations set forth by the American National Standards for Refuse Collecting and Compacting Equipment safety requirements. In addition, all employers shall meet the terms of Title 49 Code of Federal Regulations Parts 325-399, the Federal Motor Carrier Regulations (FMCSR), and will ensure that any modifications to the chassis are done in conformity with 49 CFR Part 571, the Federal Motor Vehicle Safety Standards (FMVSS).

- Provide supervised instruction and training of employees with regards to the proper use, maintenance, safety and service as described in this manual.
- Allow only employees approved by the employer to operate or service the vehicle.

- Form a plan for regular equipment and safety checks to ensure that the vehicle and all of its components are in good working order. These periodic checks should also include operator competency tests and retraining employees when they are introduced to new equipment.

- Keep records of all training and certification of employees.
  Also keep of all records of malfunctions, inspections, and maintenance.

- The timely repair of any damaged or malfunctioning parts. All repairs and checks must be completed before the vehicle is to return to normal operation. **NOTICE! A complete check should be performed on the vehicle brought in for any repair**.

- Train employees that the hoist will not be used to lift or haul any weight that is thought to be in excess of the load rating of any of the individual components of the entire piece of equipment. (Ex: hoist, hook, tires, chassis, suspension, etc.)

- Direct that all manufacturers' lockout and maintenance procedures are followed. Subsequently that all safety precautions are taken not only during both maintenance and lockout, but all procedures.
  Assure that the operator of the hoist lift knows the load rating, minimum overhead clearance and length of the vehicle with the container before they take the vehicle for normal road travel. A sign must be affixed in the cabin near the driver that states the minimum overhead clearance for the vehicle and maximum height of the container/ compactor combination.

- Verify all employees have been instructed and trained with regards to the proper use, maintenance, safety, service and to maintain written employee acknowledgement on file.

OPERATOR/ EMPLOYEE RESPONSIBILITY

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Any employee that will be operate or service a KwikLift™ must become familiar with the following responsibilities:

- Adhere to all of the safety procedures and maintenance procedures detailed by the manufacturer. No employee should operate the KwikLift™ without the proper training with regards to the use, maintenance, safety and service as described in the KwikLift™ Operator's Manual.
- Follow all instructions with regards to the lockout/tagout procedure as described by the employer and manufacturer.
- Report all damage or malfunctions to the employer or appropriate person(s) as soon as possible.
- When the hoist is in operation, the operator must make sure that the area around the pickup or dump site is clear from any obstructions, people and power lines.
- The only suitable place for passengers is in the cab. Before operating or putting the hoist into motion, the operator must make sure that no one is riding on any other part of the vehicle.
- The rear underride bar is in the horizontal position.

Please note: The owner/employer and operator/employee responsibilities listed are only a guideline. There are other responsibilities, as dictated by the uniqueness of each situation, for which the owner/employer and operator/employee are responsible.

⚠ DANGER

ALL CABLE AND HOOK CONTAINERS USED WITH THE KWIKLIFT™ MUST HAVE MATCHING SPECIFICATIONS WITH THE HOIST INCLUDING PROPER HOOK HEIGHT, HOOK STYLE, AND CONTAINER TYPE.

THE KWIKLIFT™ IS SPECIFICALLY DESIGNED FOR THE OUTSIDE RAIL CONTAINER SYSTEM. MODIFICATIONS OF THE KWIKLIFT™ TO ACCOMODATE CONTAINERS OF THE DEADLIFT SYSTEM ARE NOT AUTHORIZED OR RECOGNIZED BY THE MANUFACTURER.

NON-COMPLIANCE COULD RESULT IN SERIOUS INJURY OR DEATH.

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STANDARD LOCKOUT/TAGOUT GUIDELINES

The lockout/ tagout procedure must locate all sources of energy and disable any energy or pressure the vehicle may be storing from previous use. ALL LOCK OUT/ TAGOUT CHECKS AND PROCEDURES MUST BE PERFORMED BY AN AUTHORIZED EMPLOYEE TO PREVENT INJURY OR DAMAGE.

Execution of proper lockout/ tagout procedures is the responsibility of the employer/ owner and the employee/ operator.

ALL LOCKOUT PROCEDURES MUST BE FOLLOWED AND ALL SAFTEY PRECAUTIONS MET. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

1. Before starting any of the lockout/ tagout procedures notify all affected individuals that you will be performing a lockout/tagout.
2. The equipment shall be tagged with signs stating that a lockout is underway and that the equipment should not be activated while the signs are still in place. ALL EMPLOYEES MUST BE FAMILIAR WITH THE MEANING AND APPEARANCE OF ALL SIGNS USED IN THE LOCKOUT PROCEDURE.
   Requirements for lockout tags:
   - Must be recognizable/ readable from at least 5 feet and have coordinated distinct bright colors and patterns
   - Must be visible and recognizable from all places of operation (i.e. hoist controls, steering wheel, etc.)
   - All signs/ tags must hold up and remain secured and readable through the entire duration of the lockout and maintenance.
3. The keys shall be marked with tag stating that this vehicle is undergoing lockout. The keys should then be placed in a safe easy to remember spot, such as the operator's pants pocket.
4. After all repairs and checks are completed only authorized personnel can release the vehicle for normal operation.
5. The employer shall periodically supervise the lockout procedure performed by an employee to ensure that all safety precautions and procedures are met. Vehicle inspections by the employer after a lockout should also take place to make sure the employee follows the correct practices.

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⚠WARNING

ALL EMPLOYEES MUST BE ABLE TO RECOGNIZE ALL LOCKOUT SIGNS AND MUST NOT ATTEMPT TO OPERATE ANY PART OF THE EQUIPMENT DURING A LOCKOUT PRECEDURE UNLESS YOU ARE PERFORMING THE LOCKOUT YOURSELF. IF YOU ARE UNSURE WHETHER OR NOT A LOCKOUT IS TAKING PLACE, CHECK WITH YOUR EMPLOYER. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

STANDARD LOCKOUT/TAGOUT PROCEDURE

The following is the standard lockout procedure for the KwikLift™.

1. Set the parking brake and chock all of the wheels to prevent any unwanted movement of the vehicle during maintenance.
2. Shut down any power sources like the engine and the Power Take Off (PTO).
3. Remove the keys from the ignition.
4. Put a tag on the steering wheel and other appropriate locations, such as hydraulic controls, to prevent anyone from operating the vehicle or hoist.
5. Place operating equipment in such a way to prevent possible free fall of any elevated equipment.

   NOTE: Ensure that both service hoist props have been properly aligned with the retaining fixtures. Visually observe the props fall into place.

6. When performing maintenance on the hydraulic system, make sure that blocking systems, such as service hoist props, are enabled before hydraulic pressure is released.

NOTE: ALL LOCKOUT/TAGOUT PROCEDURES ARE IN ACCORDANCE WITH ANSI Z245.1 – 1999. A COPY OF THIS DOCUMENT CAN BE ATTAINED BY ORDERING IT ONLINE FROM http://webstore.ansi.org/ansidocstore/find.asp OR REQUESTING A COPY FROM:

WASTE EQUIPMENT TECHNOLOGY ASSOCIATION
4301 Connecticut Avenue, NW, Suite 300, Washington, DC 20008

THE EMPLOYER SHOULD RETAIN A COPY OF THIS DOCUMENT FOR FUTURE PERSONAL REFERENCE.

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Service Hoist Props

WARNING

REMOVE ANY CONTAINER FROM THE HOIST BEFORE PERFORMING ANY MAINTENANCE ON THE VEHICLE. THE ADDED WEIGHT OF THE CONTAINER COULD EXCEED THE MAXIMUM WEIGHT SUPPORTED BY THE SERVICE PROPS CAUSING THEM TO BEND OR BREAK. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

Operation:

1. Before raising the hoist, remove the service props from their retaining latch.

2. Raise the hoist and verify the service props hang straight down (vertical).

Lower the hoist and visually check to make sure that BOTH props are correctly inserted into the retaining fixture. If the service props do not fall into place inspect them to make sure they are not damaged. If damaged, DO NOT perform any other maintenance until they are repaired and in good working order. If the service props are not damaged then manually align them with the retaining fixture.

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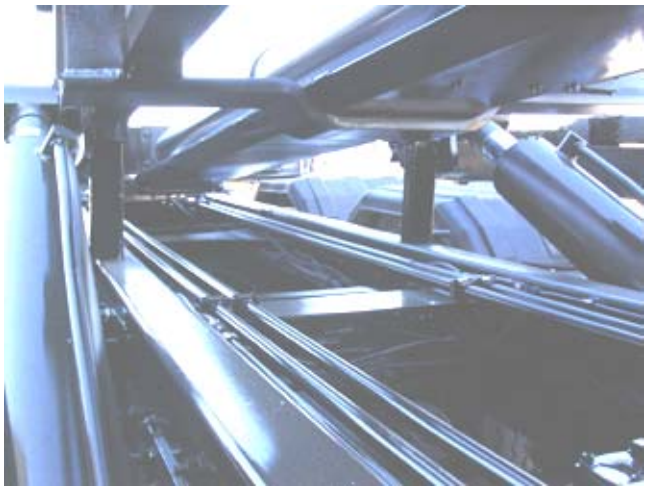

⚠ DANGER

THE SERVICE HOIST PROPS IN THE LOWERED POSITION ARE DESIGNED TO PREVENT THE HOIST FROM FALLING IN THE EVENT OF A SUDDEN LOSS OF HYDRAULIC POWER DURING SERVICE. NEGLECTING TO USE THE PROPS OR IMPROPER USE OF THE PROPS COULD RESULT IN SERIOUS INJURY OR DEATH.

Rear Underride Bar

The rear underride bar, located behind the tandem and underneath the rear end of the tilt frame, is a safety device used to prevent vehicles from going under the tilt frame in the occurrence of a collision.

Traveling without a trailer:
When traveling any distance without a trailer being towed it is necessary to make sure that the rear underride bar is secured in the horizontal position shown below.

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Traveling with a trailer:
The rear underride bar should be raised and pinned in the upward position as shown below when traveling with a trailer attached to the pintle hook.

Raising and lowering the tilt frame:
When the hoist is operating, the rear underride bar will fold and unfold with the movement of the hoist as shown below. However, before driving make sure the rear underride bar is in the horizontal position.

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SAFETY PRECAUTIONS

The following precautions do not encompass every situation that you might encounter, however it is a good idea to keep them in mind when operating any part of the equipment:

- **DO NOT** use a chain, rope or any other connector between the cable or hook and the container.
- **NEVER** position yourself or anyone else at any time under or on top of any part of the hoist or container.
- **NEVER** drive or move the vehicle when the hoist or container or both are in the upright/ raised position aside from loading/ unloading hoist activities.
- **DO NOT** allow the cable to become slack during either the loading or unloading process, because the cable could disconnect from the container.
- **NEVER** lock a control handle to stay in position; the valves are designed to return to center when released.
- **ALWAYS** power down the hoist. **NEVER** let the weight of the container lower the hoist.
- **NEVER** drive the vehicle when the PTO is engaged.
- In cold weather allow the hydraulic oil to warm up before use. Do this by engaging the PTO and letting the vehicle idle for a few minutes.
- **NEVER** drive the vehicle unless all safety latches are engaged and the rear underride bar is horizontal.
- **NEVER** leave the vehicle unattended while the engine is still running.
- **MAKE SURE** that all safety stickers and decals are readable.
- **REMOVE** any container before maintenance.
- **ALWAYS** engage **BOTH** safety props when accessing the area under the raised tilt frame.

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Operating the KwikLift™

The KwikLift™ has the capability to load and unload outside rail ANSI Standard ANSI 245.6 Type U containers.
The operation procedure in loading and unloading containers is very similar to traditional outside rail roll off cable hoists as is the loading and unloading of hook containers. Further attention is required when the route is mixed with cable and hook containers.

Read the operating instructions to familiarize yourself with the required operational sequence. Do not attempt to operate the hoist without a thorough operating knowledge.

There is one travel position for the cable end when not hauling a container. Place the cable over and into the "T" bracket on the rear light bar.

OPERATING THE PTO

OPERATING THE PTO WITH A MANUAL TRANSMISSION

Shifting the PTO into gear

1. Engage Clutch
2. Wait for transmission to stop rotating
3. Shift PTO into gear
4. Disengage clutch.

Shifting the PTO out of gear

1. Engage Clutch
2. Wait for PTO to stop rotating
3. Shift PTO out of gear
4. Disengage clutch.

OPERATING THE PTO WITH AN AUTOMATIC TRANSMISSION

Shifting the PTO into gear

1. Shift PTO into gear.

Shifting the PTO out of gear

1. Shift the PTO out of gear.

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OPERATING THE IN-CAB CONTROLS

The In-Cab Controls are located next to the driver seat. Use the picture below to help you locate and familiarize yourself with the operation these controls.

1. The left-most control operates the hoist.
   - Pushing this lowers the hoist.
   - Pulling the lever towards you raises the hoist.

2. The right-most control operates the carriage.
   - Pushing the lever moves the carriage towards the front of the truck and in the cable mode retracts the cable.
   - Pulling the lever towards you moves the carriage towards the rear of the truck and in the cable mode to extend and slack the cable.

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Accelerating the Engine
The engine can be accelerated from inside the cab by pressing the accelerator to raise the RPM up to 1100.

NOTE: BE CAREFUL WHEN OPERATING THE HOIST AT ELEVATED ENGINE SPEEDS. THE OPERATION OF ALL HOIST FUNCTIONS INCREASES WITH INCREASED ENGINE SPEED.

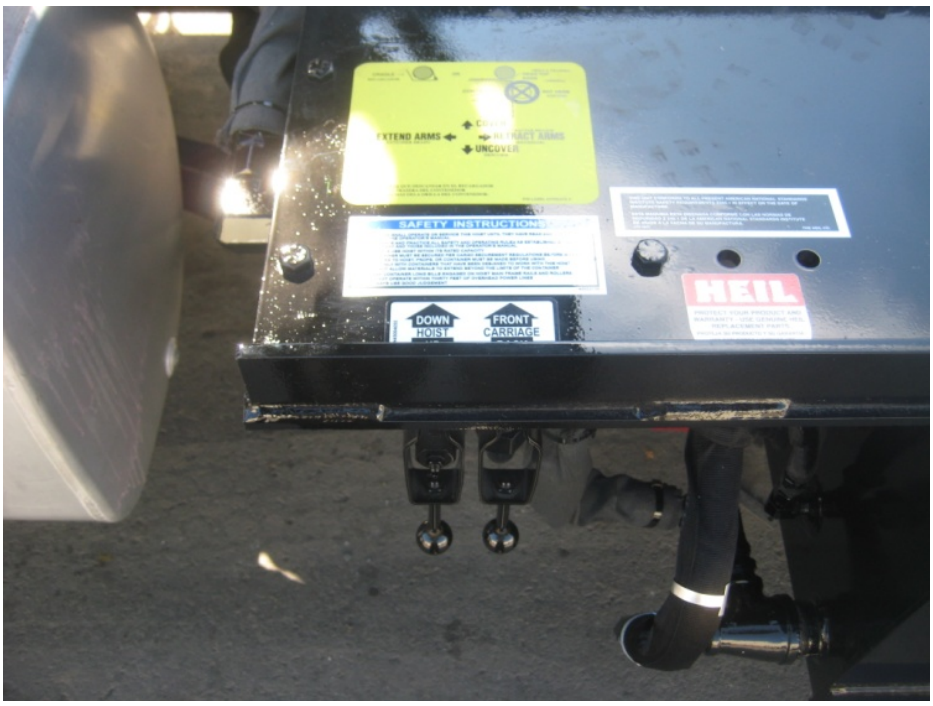
Cruise control can also be used so long as the cruise speed is set up for 1100 RPM.

OPERATING THE OUT-OF-CAB CONTROLS

The out-of-cab controls are located on the left side of the truck just behind the driver door.

1. When facing the Controls, the left control operates the hoist.
   - Pushing lowers the hoist.
   - Pulling the lever towards you raises the hoist.

2. When facing the Controls, the right control operates the carriage.
   - Pushing the lever moves the carriage towards the front of the truck and in the cable mode retracts the cable.
   - Pulling the lever moves the carriage towards the rear of the truck and in the cable mode extends the cable or slacks the cable.



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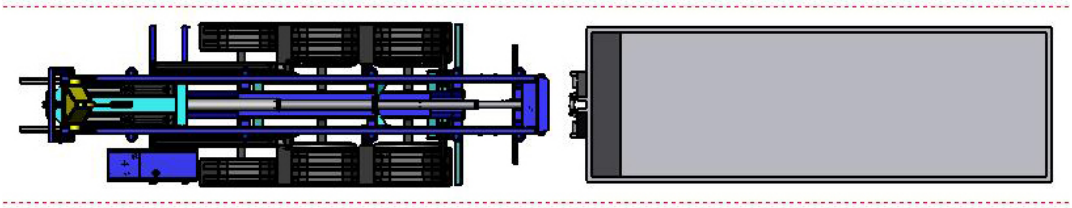
LOADING A CABLE CONTAINER

1. Back the truck squarely to the container aligning the hoist rails with the long sills on the container and allow 1 - 2 feet of clearance between the end of the hoist and the end of the container.



2. Engage the PTO.

3. Make sure the cable end is at the Rear Travel Position.

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4. Raise tilt frame until the tail nearly touches the ground (do not lift rear frame of truck off the ground with the tail of the hoist.)

5. Set the truck brakes and connect the cable end to the container hook.

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⚠ DANGER

Check to be sure the cable end is attached and in good working condition. If the cable or the connection is frayed or broken do NOT attempt to lift a container. Failure to do so could result in serious injury or death.

6. Move the carriage forward. As the container is lifted, release the truck brakes and allow the truck to be pulled under the container while keeping the hoist rollers in alignment with the container long sills.

As the container moves onto the hoist, continue moving the carriage forward and lower the hoist. Continue until the container's rollers travel beyond the hoist hinge.

Lower the hoist to engage the container long sills and hoist rails with each other and releasing the brake will allow the truck to roll under the container as it is moved further up onto the hoist.

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7. Continued

Confirm the container is in alignment with the hoist rails using both mirrors, then continue to extend the carriage forward.

8. With the container long sills in contact with the hoist rollers, continue to move the container further onto the hoist frame by moving the carriage forward.

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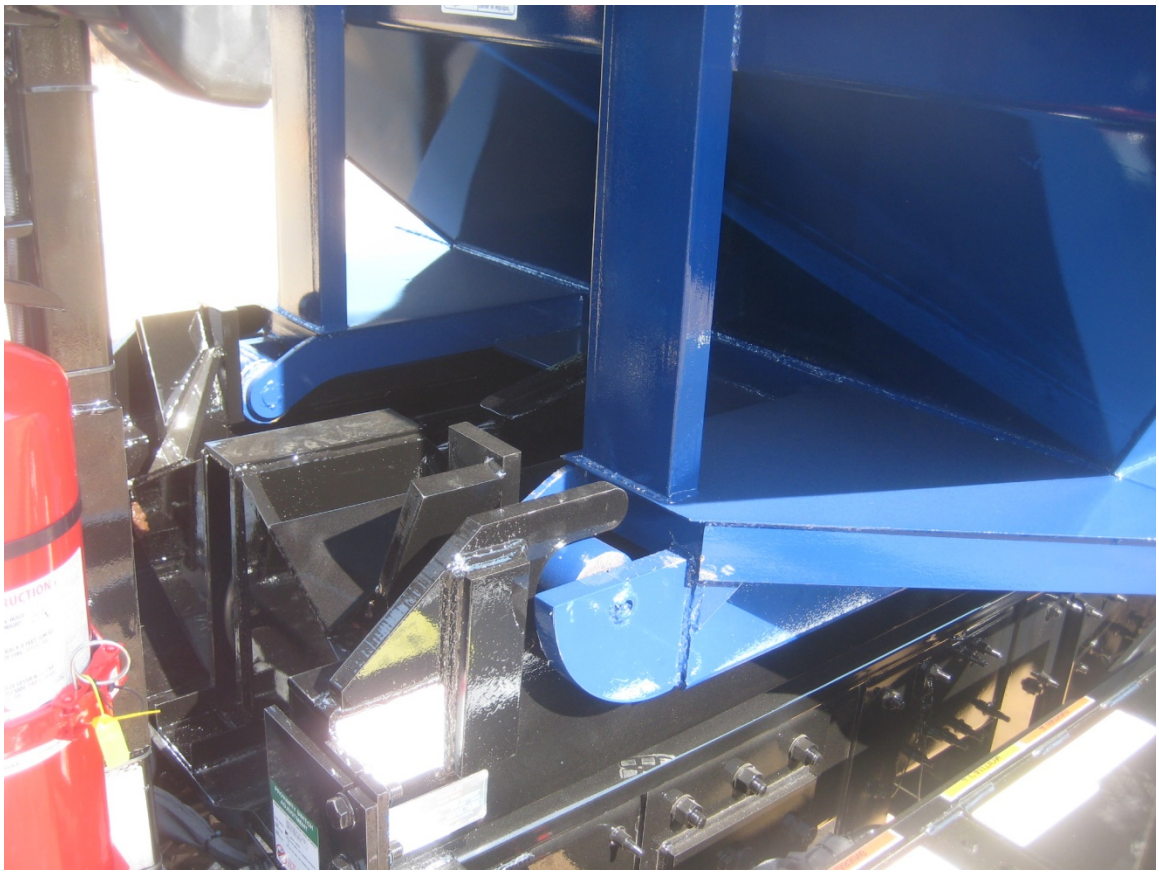
9. Continue to retract the carriage all the way to the front end of the hoist. Lower the hoist onto the truck frame.

   Verify front container rollers engage in hoist front hold downs.



10. Disengage PTO.

11. Engage the rear container hold-down device.

12. Short Container Travel Instructions:

    a. Short containers are to be pulled all the way forward into the front hold downs. This is the only legal travel position. This provides maximum weight transfer to the front axle.
    b. Short stops are not required and not offered as an option

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UNLOADING A CABLE CONTAINER

1) Back the truck into the designated area for unloading:
   a) Engage the truck brakes.
   b) Remove the rear tie downs from the hoist and the container.
2) Engage the PTO.
3) Raise the hoist and move the carriage rearward.

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4) Continue moving the carriage rearward until the container's rear rollers engage the ground. Continue to raise the hoist moving carriage rearward (maintaining tension in the cable) until the container is completely on the ground.

5) With the container completely on the ground, continue to move carriage rearward until there is slack in the cable. Pull the truck forward about two feet and set the brakes. Remove cable end from container hook.

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6) Place the cable in the Rear Travel Position.

7) Move truck forward for the end of hoist to clear front of container. Lower the hoist.

8) Disengage PTO.

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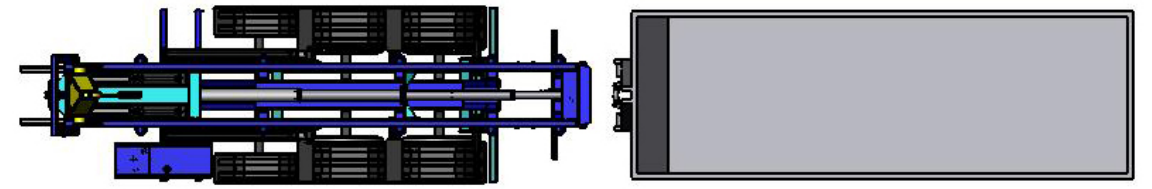
LOADING A CABLE CONTAINER ONTO A TRAILER

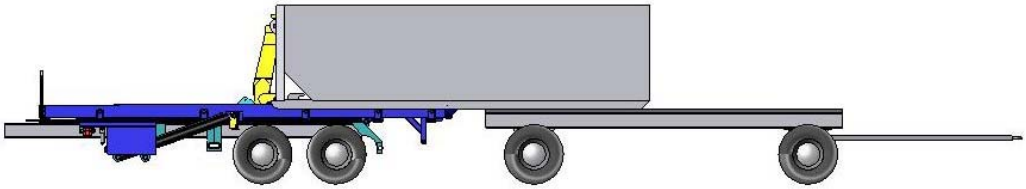
1) Align the hoist rails with the long sills on the truck and back the truck squarely to the trailer.



2) Engage the truck brakes and remove the rear tie downs from the hoist and the container.

3) Engage the PTO.

4) Move the carriage rearward pushing the container onto the trailer. The hoist may have to be raised a minimal amount for the container long sills to engage the trailer rails.



a) Continue to move the carriage rearward maintaining container/trailer rail engagement.
b) Observe the container loading alignment with the trailer; if found not in alignment move the truck to align with the trailer.
c) Continue to move the carriage rearward maintaining container/trailer rail engagement.
d) When the carriage is fully retracted, raise the tilt frame allowing the container to roll onto the trailer.

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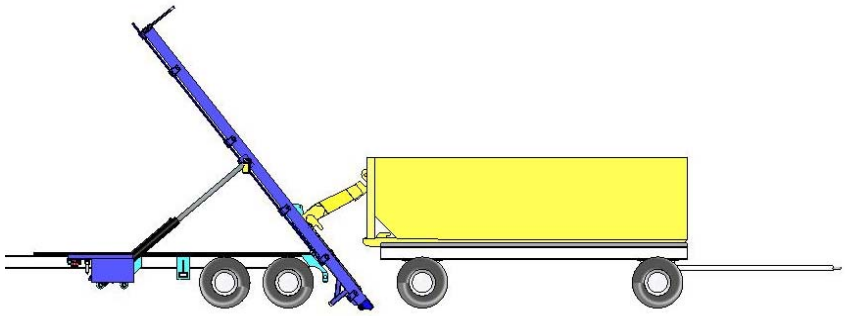
5) When the container rests on the trailer bed remove the cable from the container.

6) Lower the hoist onto the tilt frame.

7) Use the rear end of the hoist to push the container to the container travel position.

8) Secure the container on the trailer for travel with cargo securement tie down device.



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DUMPING CABLE CONTAINERS

⚠ CAUTION

BEFORE ENGAGING THE HOIST PTO CHECK THE SURROUNDING AREA FOR VEHICLES, PERSONNEL, AND POWER LINES. ALSO, CHECK TO MAKE SURE THAT THE TERRAIN IS LEVEL, SOLID, AND CLEAR OF OBSTACLES. DETERMINE HOW FAR BACK THE CONTAINER MUST BE MOVED TO DUMP DEBRIS FREE OF THE TILT FRAME.

1) Back the truck into the designated area for unloading and set the truck brakes.
   a) Verify the rear container locks are **not** engaged.
   b) Engage the PTO.
   c) Determine if the end of box is forward of the end of the hoist,

if so, move container to the rear of the frame by moving the carriage rearward,

so debris falls behind the hoist and not on the hoist frame.

   d) Note when pushing a container rearward, each foot of movement results in one foot of slack in the cable.

      Remember with short containers to take slack out of the cable before raising the hoist.

      When emptying a container always keep the cable taught, by moving carriage forward to eliminate cable slack.

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2) Open and secure the container tailgate and secure the tailgate in a safe manner.
3) Release the brakes and raise the hoist and drive the truck forward dumping the contents.

   With difficult dumping loads, create a shaking action by quickly moving the carriage rearward and forward, banging the container into the front stops.
4) Lower the hoist until it is completely on the truck frame.
5) Set truck brakes.
6) Disengage PTO.
7) Close the tailgate, lock the tailgate in the closed position and verify rear container locks are engaged.

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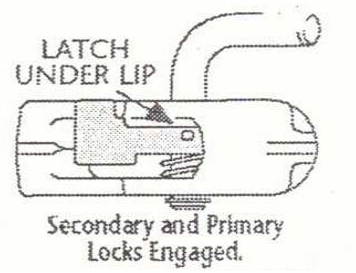
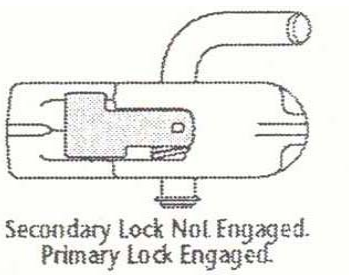
Pintle Hook

Operating Instructions:

1. Deactivate the plunger by removing the air pressure. Check to see that the plunger (XA-04156) is retracted.
2. Before using pintle hook, inspect for proper operation; worn, damaged or missing parts; and a secure mounting. Correct as required for use.
3. Open latch (XA-02536) by pushing the handle (XA-01534-1) to the left and rotating it down. While keeping the handle rotated down, lift the latch open.
4. Position the drawbar eye over the horn of the pintle and lower it into place.
5. Push the latch closed. Verify that the primary and secondary locks engage (see figure below).
6. Extend the plunger by applying air pressure.



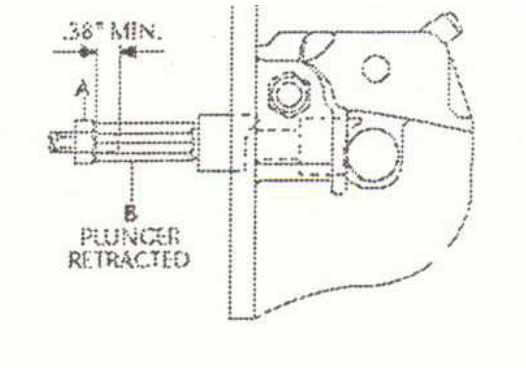
Secondary and Primary Locks Engaged.


Secondary Lock Not Engaged. Primary Lock Engaged.

Maintenance:

For proper performance, the following maintenance steps should be performed every 30,000 miles or 3 months, whichever comes first.

1. Clean and check for proper operation. Inspect for worn, damaged or missing parts. Replace as required.
2. Inspect, in particular, the coupling contact area. Replace when wear exceeds 1/8" (0.125") from the original surface profile.
3. Lubricate latch pivots with a light oil lubricant.
4. Check mounting fasteners for proper torque.
5. Check plunger adjustment. When properly adjusted, the plunger should tightly grip a 1.25" round bar when energized (see figure below) and retract far enough when de-energized to allow easy removal of the drawbar.



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Tarper

Operating Comments:

Always raise the roller out of the cradle before changing the length of the arms.
Always rest the roller on rear top edge of the tailgate and not beyond container.
Upon resting roller on tailgate, push lever to preload roller against box so it will not bounce up and down when the box is traveling.
Push lever to cover.
Pull lever to un-cover.
Lever toward **front** to extend arm.
Lever toward **rear** to retract arm.

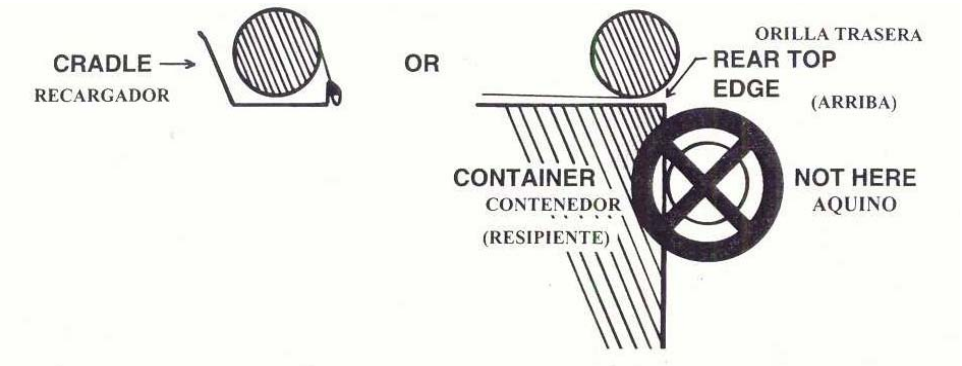
NOTE: First tarp operation of the day; pull and hold the control lever to retract lower side arm cylinders for 15-20 seconds to re-phase cylinders for smooth even arm movement.

Operating Instructions: Covering the box

1. Raise the roller until it touches the box.
2. Extend arms until arms are long enough to clear the front edge of the box.
   NOTE: If when extending arms, roller touches exhaust stack, stop and raise roller again until it touches the box and then extend arms again.
3. Move roller to the rear of the box.
4. Retract the side arms until the roller will rest on the tailgate.
5. Move the roller down onto tailgate.
6. Pressure the roller down onto the tailgate.
7. If required, flip tarp side flaps down and secure with rubber straps.

Operating Instructions: Uncovering the box

1. Remove rubber straps from side flaps of the tarp.
2. Bring the roller back up to the front. Extend or retract arms to clear front of the box.
3. Position the roller down into the cradle.



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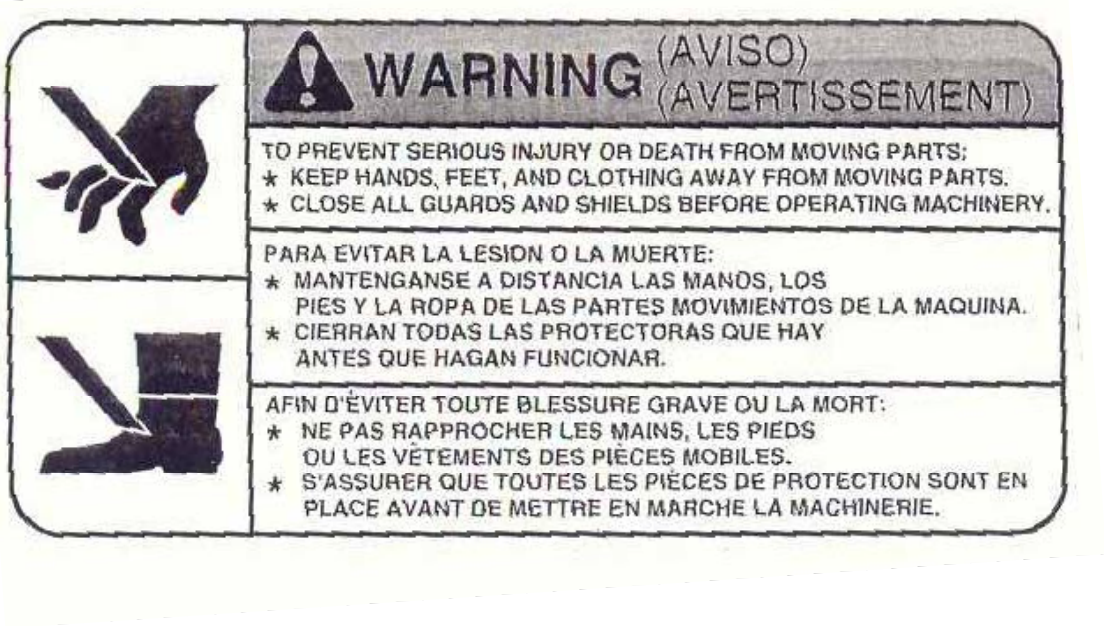
WARNING (AVISO) (AVERTISSEMENT)
TO PREVENT SERIOUS INJURY OR DEATH FROM MOVING PARTS:
* KEEP HANDS, FEET, AND CLOTHING AWAY FROM MOVING PARTS.
* CLOSE ALL GUARDS AND SHIELDS BEFORE OPERATING MACHINERY.
PARA EVITAR LA LESION O LA MUERTE:
* MANTENGANSE A DISTANCIA LAS MANOS, LOS PIES Y LA ROPA DE LAS PARTES MOVIMIENTOS DE LA MAQUINA.
* CIERRAN TODAS LAS PROTECTORAS QUE HAY ANTES QUE HAGAN FUNCIONAR.
AFIN D'ÉVITER TOUTE BLESSURE GRAVE OU LA MORT:
* NE PAS RAPPROCHER LES MAINS, LES PIEDS OU LES VÊTEMENTS DES PIÈCES MOBILES.
* S'ASSURER QUE TOUTES LES PIÈCES DE PROTECTION SONT EN PLACE AVANT DE METTRE EN MARCHE LA MACHINERIE.

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APPENDIX A
MAINTENANCE CHART
AND
ILLUSTRATION

INSPECTION AREAS	Daily	Weekly	3 mo.	6 mo.	1 yr.
Check Hydraulic Oil levels	X	X	X	X	X
Hydraulic components	X	X	X	X	X
Hydraulic oil leaks	X	X	X	X	X
Rollers, Rear hinge, Pivot Points, Sheave	X	X	X	X	X
Nuts & bolts	X	X	X	X	X
Electrical wiring	X	X	X	X	X
Back up and hoist up warnings	X	X	X	X	X
Structural components	X	X	X	X	X
Front and rear container hold downs	X	X	X	X	X
Cable, Mast and Hook	X	X	X	X	X
Control rod or cable linkage	X	X	X	X	X
Shafts and Cotter pins	X	X	X	X	X
Pintle Hook	X	X	X	X	X
Lights, Reflectors	X	X	X	X	X
Warning Decal Inspection	X	X	X	X	X
Hoist Frame and hinge	X	X	X	X	X
[redacted]					
Grease all grease fittings (refer to pg.32)		X	X	X	X
Check Hydraulic filter		X	X	X	X
Check Hydraulic breather		X	X	X	X
[redacted]					
Inspect the condition of hydraulic oil for proper color, odor and feel			X	X	X
[redacted]					
Replace air breather				X	X
Replace hydraulic oil filter				X	X
[redacted]					
Clean suction strainer					X
Replace hydraulic oil					X

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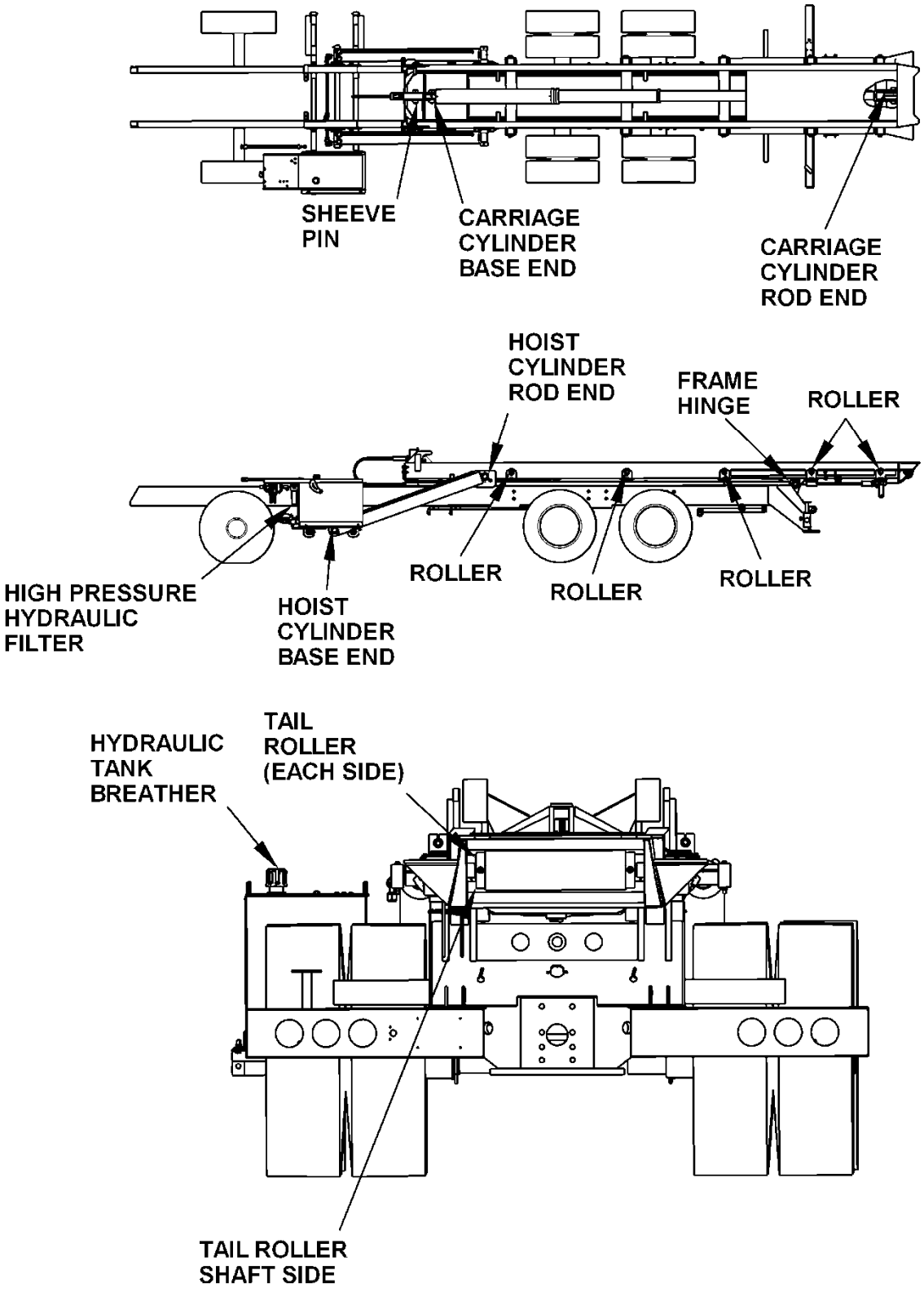

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HEIL ENVIRONMENTAL KWIKLIFT™ WARRANTY STATEMENT

Heil Environmental ("Heil") d/b/a KwikLift™ warrants its solid waste collection equipment to be free from defects in material and workmanship under normal single-shift use for a period of twelve (12) months or 2000 hours of operation (whichever comes first) from the date of equipment invoicing or during the period of coverage offered by an extend warranty program, when operated in accordance with its *Operator's Manual* and proper service and maintenance as described in KwikLift™ *Service Bulletins* and *Parts and Service Manuals* are performed. The standard or extended equipment warranty is not transferable except for sales demonstration units.

This warranty is expressly limited to the repair or replacement of any component or part thereof, of any such KwikLift™ product manufactured by Heil that is proven to Heil's satisfaction to have been defective in material or workmanship. Such components or parts shall be repaired or replaced at Heil's option without cost to the standard purchaser for parts and labor provided such units is returned to an authorized KwikLift™ Dealer for replacement or repair. The repair or replacement must be made during the standard or extended warranty coverage period.

All OEM service parts sold by Heil for the KwikLift™ product line have a six (6) month warranty from the date of purchase. Aftermarket parts purchased from Heil are supported by a 90-day warranty. The parts warranty covers parts only, provided that factory inspection reveals a defect in material or workmanship. Labor, troubleshooting, equipment downtime, etc. is not covered under the parts warranty policy.

HEIL MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. HEIL DOES NOT ASSUME ANY LIABILITY OR ACCEPT CLAIMS FOR LOSS OF PROFITS, PRODUCT DOWN TIME OR ANY OTHER DIRECT, INCIDENTAL OR INDIRECT CONSEQUENTIAL LOSSES, COSTS, DAMAGES OR DELAYS.

Any improper use, operation beyond rated equipment or component capacity, substitution of parts that are not Heil approved, or any alteration or repair by others in such manner as in Heil's sole judgment affect the product operation or integrity shall void the warranty.

Other than the extension of the standard warranty period purchased under a supplemental Heil Extended Warranty Program, no employee or representative is authorized to modify this warranty in any way nor shall any other warranties be granted. No dealer-supplied warranty program is endorsed or supported by Heil.

All warranty activity must the processed through an authorized Heil Environmental Dealer or Service Center.

Heil retains the right to modify its factory warranty program prospectively at any time.

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www.heil.com

Customer Support

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